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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,904	02/10/2004	Robert A. Mackin	3064-A-15	1198

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EXAMINER

LEUBECKER, JOHN P

ART UNIT PAPER NUMBER

3739

DATE MAILED: 06/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/775,904

Applicant(s)

MACKIN, ROBERT A.

Examiner

John P. Leubecker

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/10/04</u> . | 6) <input type="checkbox"/> Other: _____  |

***Drawings***

1. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the drawings do not comply with at least 37 CFR 1.84 (l) which requires clean, dark, uniform and well-defined lines. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 5, term “batteries” lacks antecedent basis.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

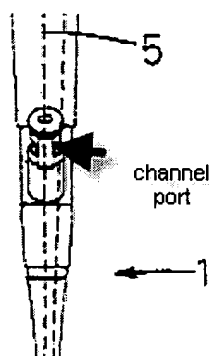
A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 9-11, 13 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Sano et al. (US 2002/0022763).

It is noted that the nominal recitation of an endotracheal tube, required by claims 1-13, is taken in its broadest sense to only require a tube capable of supply of a fluid (i.e., oxygen, anesthetic gas). The endoscope of Sano et al. includes an insertion portion (2) which constitutes a tube and, as would be clearly recognized by the ordinarily skilled artisan, further includes an auxiliary channel through such tube (note conventional indication of a channel port in Figure 2).



As is recognized and evidenced by Berci (U.S. Pat. 4,846,153), a auxiliary channel (44, Fig.2) in an endoscope (Fig.1) is capable of being used for the supply of gas during an intubation procedure (col. 5, line 48 to col.6, line 6). Thus, for claim interpretation purposes, the recitation of an endotracheal tube can reasonably be met by the endoscope insertion portion and auxiliary channel of Sano et al.

Sano et al. discloses a source of light comprising a light source lamp (12, Fig.1) and a optical fiber guide (4) extending to the distal end of the tube (2), a lens (not shown but described in [0044]), a camera (22, Fig.1) and including an optical fiber guide (5) interconnecting the

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camera and lens (Fig.1), a radio frequency transmitter (21,23, [0048]) for transmitting the image, a radio frequency receiver (30,31, Fig.2, [0057]) for receiving the image, and video monitor (40) for displaying the image. Since the method steps of claims 9-11 and 13 merely recites steps of using the above mentioned structure in the way that it was intended by Sano et al., these method step are met by use of the Sano et al. structure.

6. Claim 14 is rejected under 35 U.S.C. 102(b) as being anticipated by Berci (U.S. Pat. 4,846,153).

Berci discloses an endotracheal tube (either sheath 12 which has a channel capable of supplying gas to the trachea, col. 5, line 48 to col.6, line 6, or the tube (not numbered) but shown in Figures 3 and 4, col.6, lines 38-42), a source of light disposed at the distal end of the endotracheal tube (38, col.5, lines 39-47), a lens (image forming optical system 22) at the distal end of the endotracheal tube (Fig.2a), a camera (inherent image sensor of video system 36), and a monitor (not numbered but shown in Figures 1 and 4). The “transmitter” would be met by the circuitry and wires of the video system 36 that takes the image formed by the image sensor and transmits to the monitor (note cable in Figure 1 extending out of 36). The receiver would be met by the circuitry and wires of the monitor that receive the image from the video system and convert it for display. It is assumed since the only mention of light transmission through the tube is with respect to fiber optics (col.8-13), that fiber optics were contemplated and intended for the image and light transmitting systems (also note mention of analogous prior art fiber scope of U.S. Pat. 3,788,304 which includes conventional fiber optic image and illumination systems).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2-8, 12 and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sano et al. (US 2002/0022763).

Regarding claims 2 and 15, Sano et al. disclose the device as described above including what appears to be a single battery (13) for supplying power to the camera and transmitter (Fig.6) and thus fails to describe “batteries” (plural). It would have been well within the level of ordinary skill in any art, as a matter of design consideration, to use multiple batteries instead of a single batteries for reasons stemming from, for example, space and size requirements, weight requirements, power requirements, cost, availability, etc. It therefore would have been obvious to one of ordinary skill in this art at the time of the invention to have provided multiple batteries for the apparent single battery of Sano et al. It is noted that there is limited mention of the particulars of battery (13) in Sano et al. and there is no explicitly teaching or remote suggestion that a single battery is critical. In addition, Sano et al. anticipates the remaining limitations of claims 4, 7, 17 and 20: the camera (22), transmitter (23) and batteries (13) are connected together (Fig.6) to form a modular unit, which is portable (everything is portable).

Regarding claims 3, 8, 12 and 16, Sano et al. discloses in the embodiment shown in Figure 6 a light source comprising “a light source lamp 12 constituted by a so-called miniature

lamp or the like” ([0046]) and fails to mention that lamp (12) is an LED. However, Sano et al. explicitly teaches in another embodiment to make the light source an LED ([0072]). If for some reason the “so-called miniature lamp or the like” can not be interpreted as inherently encompassing an LED (which the Examiner takes the position that and LED would be considered a miniature lamp (or the like)) or if such term would not encompass other contemplated light sources in other embodiments in the same disclosure (in which the Examiner takes the position that it most likely would), it would have been obvious to one of ordinary skill in the art at the time of the invention to have used an LED as the “light source lamp 12”. Since it is conventional knowledge that LEDs can be smaller in size, more efficient, require less power, and generate less heat (under most conditions) than their traditional incandescent lamp counterpart, there would be ample motivation to use an LED as “light source lamp 12”. As to claim 5, note the modular unit as pointed out above. As to claims 6 and 18, the remaining limitations are disclosed by Sano et al.: as best shown in Figure 1, the proximal ends of the image and illumination fiber bundles are optically secured in the proximal end of the scope (e.g., portions 3 and 6), the structure surrounding the proximal ends forming a “first plug”. The detachable structure of camera housing (20) and light source (10) ([0043] and [0045]) form a second plug.

9. Claims 1-13 and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berci (U.S. Pat. 4,846,153) in view of Kazakevich (US 2004/0147809).

Berci discloses the device as described above but fails to disclose: 1) a radio frequency (wireless) transmitter/receiver for transmitting the image to the monitor, 2) a light emitting

diode as the light source, and 3) batteries for powering the transmitter and camera. Kazakevich teaches the use of a battery operated wireless camera for transmitting the image from the endoscope to a receiver of the TV ([0056]). In addition, an LED light source ([0032], Fig. 2) forms part of the “modular” unit encompassing the camera assembly (48). Kazakevich teaches that the incorporation of the LED light source and battery powered wireless camera into a modular unit for optical coupling to the image and illumination system at the proximal end of an endoscope “greatly improves the comfort and ease in maneuvering the device” and provides for a “completely self-contained wireless endoscope” ([0018]). It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided for a battery powered wireless camera and integral LED light source connected to the scope device of Berci for the reasons taught by Kazakevich.

The device of Berci/Kazakevich still fails to mention the particular type of wireless transmission. Sano et al., as described above uses a radio frequency transmission. The ISM bands (Industrial, Scientific and Medical) are radio frequency bands that are free and unlicensed, and commonly used in the medical field. It would have been obvious to one of ordinary skill in the art have turned to the prior art for the choice of wireless transmission.

Note that although most claim limitations are addressed with the obvious combination proposed above, it is noted that in making such combination would necessarily include the mating of the modular unit to the endoscope. The structure that mates the modular unit to the endoscope on both sides form first and second plugs.



10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Although cited by Applicant, it should be pointed out that there would be an issue of obviousness to provide a wireless camera (which is known in the art) to replace the eyepiece of the device disclosed in Applicant's previous patent, U.S. Pat. 5,285,778. Such potential combination would meet the limitations of at least claim 1. This potential combination has not been explored at this time since the references cited above appear to best set forth the Office's position with respect to all claims.

Also note:

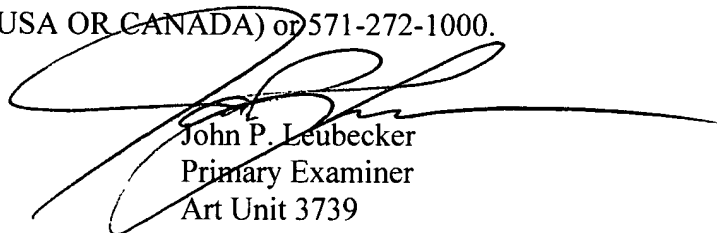
Berci et al. (US 2004/0133073)	Satoh et al. (US 2003/0012461)
Onishi et al. (U.S. Pat. 6,902,529)	Mandelkern et al. (U.S. Pat. 6,761,561)
Yarush et al. (U.S. Pat. 6,554,765)	Hill (U.S. Pat. 6,929,600)
Pirak et al. (U.S. Pat. 5,400,771)	Lafferty et al. (U.S. Pat. 5,323,767)
Chhibber et al. (U.S. Pat. 2002/0137984)	Gravenstein et al. (U.S. Pat. 6,322,498)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Leubecker whose telephone number is (571) 272-4769. The examiner can normally be reached on Monday through Friday, 6:00 AM to 2:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C.M. Dvorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



John P. Leubecker  
Primary Examiner  
Art Unit 3739

jpl